

Remarks

In view of the above amendments and following remarks, Applicants request withdrawal of the rejections in the Office Action dated December 11, 2006.

Claims 1, 6, 7, 9-13, 16-27 and 45-51 are pending with claims 1, 27 and 45 being independent. The Office Action objected to claims 2 and 3 as being in improper dependent form. In response to this objection, claims 2 and 3 have been cancelled and rewritten as dependent claims 50 and 51. This is believed to adequately address this rejection.

Claims 1, 6, 7, 9, 11-13, 17-26, 45, 48 and 49 have been rejected as being anticipated by Addicks (US PG-Pub2001/0043945). Claim 1 is directed to an extended release pharmaceutical composition in the form of a capsule comprising a powder blend of phenytoin sodium and one or more hydrophilic polymers. The hydrophilic polymers comprise a combination of a cellulose ether and carbohydrate gum.

Addicks discloses pharmaceutical compositions that include an admixture of phenytoin sodium and an erodible matrix made up of binders and diluents. Capsule compositions are described in Examples 1-3 as being made by wet granulation of the binder in water with the phenytoin sodium and other excipients (Example 1, hydroxyethyl cellulose and microcrystalline cellulose; Example 2, magnesium oxide, hydroxyethyl cellulose and microcrystalline cellulose; Example 3, hydroxypropyl cellulose and microcrystalline cellulose). The resulting granules are dried, milled, blended with colloidal silicon dioxide and magnesium stearate, compressed into tablets, and the tablets placed into capsules. As such, Addicks does not describe or suggest a capsule that has a powder blend of phenytoin sodium and one or more hydrophilic polymers. Instead, the capsule contains compressed tablets that contain a blend that includes an erodible matrix of phenytoin sodium, polymers and other excipients. Applicants submit that a compressed tablet cannot be characterized as a powder blend.

In fact, Addicks expressly differentiates his erodible matrix composition from powder blends: "The advantage of using an erodible matrix delivery system admixed with phenytoin sodium, as compared to a loose powder-filled delivery system, is that the

erodible matrix provides a more uniform and reproducible dissolution profile.” See page 1, paragraph 12, lines 10-14 (emphasis added). In this passage Addicks not only differentiates powder systems from his compressed erodible tablet composition, he also denigrates powder blends. In denigrating powder systems, this passage thereby teaches away from the powder blend of claim 1. Accordingly, Applicants submit that claim 1 and dependent claims 6, 7, 9, 11-13, 17-26 and 49 are allowable over Addicks. Newly added claims 50 and 51 ultimately depend from claim 1 and are allowable for the same reasons that claim 1 is allowable.

Independent claim 45 is directed to a method for controlling or treating one or more of generalized tonic-clonic (grand mal) seizures and complex partial (psychomotor, temporal lobe) seizures and prevention and treatment of seizures occurring during or following neurosurgery in a patient in need thereof. The method includes administering an extended-release pharmaceutical composition that includes a powder blend of phenytoin sodium and hydrophilic polymers. The hydrophilic polymers include a combination of a cellulose ether and carbohydrate gum.

Like claim 1, claim 45 includes a powder blend of phenytoin sodium and hydrophilic polymers. Thus, for the same reasons that claim 1 is allowable over Addicks, claim 45 and dependent claim 48 are allowable.

Claims 1, 6, 7, 9, 11-13, 17-19, 26, 27, and 49 are rejected as being anticipated by Straub (US 6,395,500). Straub is directed to porous drug matrices for low aqueous solubility drugs. As described in Straub’s abstract, to make a porous matrix of the drug, the drug is dissolved in volatile solvent and then a pore forming agent is added to the drug solution. The volatile solvent and pore forming agent are removed by, for example, spray drying. The Abstract further states that the microparticles of the porous drug matrix can be reconstituted with an aqueous medium and administered parenterally “or processed using standard techniques into tablets or capsules for oral administration.” See Abstract. Straub, however, does not describe or suggest capsules containing a powder blend of phenytoin sodium and one or more hydrophilic polymers comprising a combination of a cellulose ether and carbohydrate gum.

In fact, Straub does not give any details for taking the microporous powder of the drug and making the capsules. At most, Straub points to a reference book, "*Pharmaceutical Dosage Forms and Drug Delivery Systems*" for methods of using the porous matrix to form tablets, capsules, rectal suppositories, creams and ointments, as well as to fill a pulmonary inhaler. Instead of making capsules, Applicants submit that a fair reading of Straub shows that her formulations are directed to injectable and parental formulations with only a passing reference to the possibility of using the porous matrix in other dosage forms, such as capsules. For example, Straub provides statements indicating that the problem to be solved is dissolution of poorly soluble drugs for injection or parenteral administration and this problem has been solved by the microporous drug matrix that rapidly dissolved in the injectable solution. See column 1, lines 21-27 and 65-67; column 2, lines 11-13 and 57-62.

Even if Straub could be read to teach one of skill in the art to make capsule dosage forms, the dosage form of claim 1 would be taught based only on impermissible hindsight using the Applicant's application for the teaching to select the limitations of claim 1. For example, phenytoin sodium is listed in Straub as one of over approximately 500 active ingredients and over 43 named classes and subclasses of drugs. See column 4, line 27 through column 8, line 9 for listing of the active ingredients. Approximately five cellulose ethers are listed amongst 25 hydrophilic polymers and classes of hydrophilic polymers. See column 8, lines 36-51. Further the only carbohydrate gum listed amongst the 25 hydrophilic polymers and classes of hydrophilic polymers is acacia. See column 8, line 43. Thus, to find the elements of claim 1 in Straub, one of ordinary skill in the art would have been required to (1) select the phenytoin sodium from over 500 hundred active ingredients, (2) select the recited combination of a cellulose ether and a carbohydrate gum from a listing over 25 hydrophilic polymers, and (3) select a capsule dosage form for oral administration from the listing of various routes of administration and examples of dosage forms suitable for those routes of administration. Applicants submit that only impermissible hindsight reconstruction could lead to this combination. Accordingly, the rejection of claim 1 and dependent claims 6, 7, 9, 11-13, 17-19, 26 and 49 should be withdrawn.

Independent claim 27 is directed to a process for preparing an extended release pharmaceutical composition that includes a blend of phenytoin sodium and one or more hydrophilic polymers. The process includes blending phenytoin sodium and one or more hydrophilic polymers, screening the blend, and filling the blend into capsules. The hydrophilic polymers include a combination of a cellulose ether and carbohydrate gum. Like claim 1, independent claim 27 recites a capsule that includes a combination of phenytoin sodium and one or more hydrophilic polymers comprising a cellulose ether and carbohydrate gum. As such, for the same reasons that claim 1 is allowable over Straub, claim 27 is allowable over Straub.

Claims 10 and 16 have been rejected as being obvious over Straub or Addicks in view of Pankhania (US 5,415,871). Claims 10 and 16 are allowable over the combination of Straub in view of Pankhania because Pankhania fails to cure the deficiency of Straub to describe or suggest capsules containing a powder blend of phenytoin sodium and one or more hydrophilic polymers comprising a combination of a cellulose ether and carbohydrate gum. Similarly, claims 10 and 16 are allowable over the combination of Addicks in view of Pankhania because Pankhania fails to describe or suggest a capsule that has a powder blend of phenytoin sodium and one or more hydrophilic polymers.

As stated in the patent, Pankhania's invention is directed to extended release solid dosage forms that include a compressed mixture of a drug and xanthan gum:

Accordingly, the present invention provides a solid sustained release pharmaceutical formulation comprising a compressed mixture of a pharmacologically active ingredient and 7.5 to 28% by weight of the formulation of a sustained release carrier comprising a major proportion of xanthan gum.

See column 2, lines 27-32 (emphasis added). Pankhania repeatedly and consistently characterizes his formulations as being compressed and has numerous references throughout the specification of the formulation being compressed into tablets. Pankhania notes that the solid form may be formed into any desired solid dosage presentation and lists gelatin capsules, tablets, lozenges, suppositories, pessaries and implants. See column 6, lines 29-36. Just as Addicks is directed to placing tablets into a capsule, the

Applicants understand this passage in Pankhania to refer to placing the compressed formulation (i.e., tablets) into a capsule. Thus, Pankhania cannot be fairly characterized as describing or suggesting capsules having a powder blend of phenytoin sodium and one or more hydrophilic polymers. At best, Pankhania describes capsules that have a tablet containing a drug and xanthan gum.

Further, the Office Action points to a passage at column 3, lines 53-64 for motivation to combine Pankhania with Straub or Addicks. Even if such motivation would have lead one of skill in the art to combine Pankhania with Straub or Addicks, Applicants disagree that this would have resulted in the claimed compositions. The passage referenced in the Office Action describes the use of xanthan gum in a "sustained release carrier." As quoted above, Pankhania characterizes the sustained release carrier as being a compressed mixture of the active ingredient and xanthan gum. See column 2, lines 27-32. Thus, combining Pankhania with Straub or Addicks would lead to a compressed mixture of the active ingredient and xanthan gum, not the powder blend of claim 1, from which claims 10 and 16 depend.

Along similar lines, Applicants submit that the Office Action recognizes that the cited art is teaching tablets, rather than capsules containing a powder blend of phenytoin sodium and one or more hydrophilic polymers. Specifically, the Office Action states:

One of ordinary skill in the art at the time the invention was made would have a reasonable expectation of success in making the extended release tablet, since the cited references all teach similar tablets.

See Office Action, page 8, last paragraph (emphasis added). As such, combining the cited art would lead only to tablets, not the claimed capsule containing the powder blend of phenytoin sodium and one or more hydrophilic polymers.

For the above reasons, claims 10 and 16 are allowable over the combination of Straub or Addicks and Pankhania.


Claims 46 and 47 are rejected as being obvious over the combination of Addicks in view of Jao (US PG-Pub 2001/0043945). Jao is directed to osmotic release dosage forms for delivering drugs to treat epilepsy. Throughout the specification, Jao describes the dosage forms as including a compressed drug core or layer. As such, claims 46 and

47 are allowable over the combination of Addicks in view of Jao because Jao fails to describe or suggest a capsule that has a powder blend of phenytoin sodium and one or more hydrophilic polymers. Instead, Jao describes compressing the drug to form a core or layer. Assuming for the sake of argument that Jao's drug core or layer could contain phenytoin sodium and one or more hydrophilic polymers, Jao's compressed drug core or layer nevertheless cannot be characterized as being equivalent to a powder blend of phenytoin sodium and one or more hydrophilic polymers. Applicants submit that for this reason claims 46 and 47 are allowable over the combination of Addicks in view of Jao.

Conclusion

For the reasons stated above, the Examiner is urged to pass claims 1, 6, 7, 9-13, 16-27 and 45-51 to issue. Applicants request a one month extension of time until April 11, 2007 to respond to the Office Action. Authorization is hereby given to charge any fees or credits due in connection with this Response to Office Action to Deposit Account No. 50-0912. For purposes of fees, Applicants are a large entity.

Respectfully submitted,



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